

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07K 19/00, 14/62, 14/61, C12N 15/62, 1/21 // (C12N 1/21, C12R 1:19)	A1	(11) International Publication Number: WO 99/50302 (43) International Publication Date: 7 October 1999 (07.10.99)
(21) International Application Number: PCT/CN98/00052 (22) International Filing Date: 31 March 1998 (31.03.98) (71) Applicant (for all designated States except US): TONGHUA GANTECH BIOTECHNOLOGY LTD. [CN/CN]; Gantech Biotechnology, Dongbao Group, Tonghua City, Jilin Province 134102 (CN). (72) Inventor; and (75) Inventor/Applicant (for US only): GAN, Zhongru [CN/CN]; Gantech Biotechnology, Dongbao Group, Tonghua City, Jilin Province 134102 (CN). (74) Agent: CHINA PATENT AGENT (H.K.) LTD.; 22/F, Great Eagle Centre, 23 Harbour Road, Wanchai, Special Administrative Region Hong Kong (CN).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: CHIMERIC PROTEIN CONTAINING AN INTRAMOLECULAR CHAPERONE-LIKE SEQUENCE AND ITS APPLICATION TO INSULIN PRODUCTION (57) Abstract <p>The present invention relates to a chimeric protein containing an intramolecular chaperone (IMC) like sequence linked to a target protein, preferably an insulin precursor. The present invention also relates to a process for obtaining a correctly folded insulin-precursor-containing chimeric protein, comprising, <i>inter alia</i>, contacting an incorrectly folded chimeric protein containing an IMC like sequence linked to an insulin precursor with at least one chaotropic auxiliary agent. The present invention further relates to an assay for screening an amino acid sequence for the ability to improve folding of an insulin precursor using a chimeric protein containing an IMC like sequence linked to an insulin precursor.</p>		